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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/507,768	02/18/2000	Sergio Lazzarotto	4617	8618

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EXAMINER
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LEE, TIMOTHY L

ART UNIT	PAPER NUMBER
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2662

DATE MAILED: 10/24/2003

16

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/507,768

Applicant(s)

LAZZAROTTO ET AL.

Examiner

Timothy Lee

Art Unit

2662

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 04 August 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-10, 17, 19-29 and 32-49 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10, 17, 19-29 and 32-49 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 14. 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-7, 10, 17, 19-26, 29, 32-34, and 47 are rejected under 35 U.S.C. 102(b) as being anticipated by Mahamy et al. (US 5,682,379).

3. Regarding claims 1, 19, 33, and 34, Mahamy et al. discloses a wireless personal local area network. In summary, a mobile network device has a first radio transceiver for communicating with a main radio network and a second radio transceiver for communicating with a radio subnetwork. See col. 3, lines 37-43. The mobile network device participates as a slave to the main radio network and participates as a master to the radio subnetwork. Fig. 1a shows the network described in the invention. The overall communication network is arranged into two functional groups: 1) a main communication network; and 2) a microLAN network. The main communication network includes a hard-wired backbone LAN 19 and base stations 15 and 17. Network devices that are mobile or remote (i.e. cannot be directly connected to the backbone LAN 19) are fitted with RF transceivers. Not all mobile or remote devices require a direct RF link to the base stations 15 and 17, though. Instead, communication is generally localized to a small area and only requires relatively lower power, shorter range transceivers. The devices which participate in the localized, short range communication, form what is termed a microLAN. See col. 5, lines 24-63 for a more detailed explanation. As briefly described, the

participating devices need not all possess the transceiver capability to reach the main communication network. However, at least one microLAN device needs to have that capability to maintain overall network connectivity. See col. 6, lines 57-63. This one microLAN device can be referred to as the “master” device in the microLAN network. Fig. 3 shows an RF transceiver that is plugged into each device in the network. In particular, the transceiver 110 contains a radio unit 112 which attaches to an attached antenna 113. Potential microLAN master devices require the ability to communicate with potential microLAN slave devices along with the main network. Thus, potential microLAN master devices might contain two radio units 112—one serving the main network and the other serving the microLAN network (a first I/O port for receiving...a second I/O port for receiving). See col. 9, lines 8-21. In embodiments where cost and additional weight are not an issue, the dual radio unit configuration for potential master microLAN devices provides some advantages. For example, simultaneous transceiver operation is possible by choosing a different operating band for each radio. In such embodiments, a 2.4 GHz radio is included for main network communication—in the main network, the master will be communicating with a base station which can be known as a “device”—while a 27MHz radio supports the microLAN network, which consists of many “devices.” Potential microLAN master devices receive both radios. See col. 9, lines 23-34. From the main network, the base stations periodically broadcast messages, and the master device monitors the messages to see if the base station anything. See col. 13, lines 51-67. Also, slave devices in the microLAN can communicate with the master as well by indicating that they have data to send during certain time periods. See col. 12, lines 15-27. Therefore, the master is receiving information from at least two different devices in two different frequency bands (a receiver apparatus for receiving

wireless communications from a number of wireless devices). Connected between the radio unit 112 and an interface 110, a microprocessor 120 controls the information flow through the transceiver. The microprocessor controls the radio unit to accommodate communication with the main network and the microLAN. More specifically, in a main mode transceiver, the microprocessor utilizes a main protocol to communicate with the main network, and in a microLAN mode transceiver, the microprocessor operates pursuant to a microLAN protocol to communicate in the microLAN network. Mahany et al. also mentions that in situation that may involve conflict, the processor is responsible for using priorities to determine which signal is processed first, so Mahany et al. implies that the processor is able to identity and discern which signal is which (a processor for effecting upon received communication information a protocol that corresponds to one of the first or second wireless communication devices; implementing a protocol that corresponds to the identified wireless communication device). See col. 10, lines 10-23.

4. Regarding claim 33 more specifically, it is inherent that the microLAN master would identity which device the packets originated from through the information stored in the packets. Also, the processor must know how to operate in some manner, so it is inherent that it is reading its instructions from some computer readable medium.

5. Regarding claims 2 and 22, any data transferred in a LAN can be considered a broadband signal. Mahany et al. discloses that data rates can be adjusted depending on what kind of battery savings is wanted. See col. 15, lines 2-19.

6. Regarding claims 3-6 and 23-26, as mentioned above, one of the frequency ranges mentioned was in the 27 MHz range, and the other band mentioned was in the 2.4 GHz range (first frequency from about 26 MHz to 28 MHz; second frequency range from 2 GHz to 4 GHz).
7. Regarding claims 7 and 21, as mentioned above, the master device can have two separate radios for receiving in the two different frequency ranges, so they will involve two different sections of memory and processes.
8. Regarding claims 10 and 29, it is inherent that there would be error checking capabilities in the system. Without an error check, damaged packets could pass through and there would be misinformation passed through the system.
9. Regarding claim 17, all of the processes occur in what appears to be the hardware of the system, where specific instructions as to what to do could possibly be implemented in software.
10. Regarding claim 20, it is inherent that the processor contains some sort of memory. Without memory, there is no way that it could execute instructions on what to do.
11. Regarding claim 32, it is inherent that the first and second communication devices will have processors. Without processors, there would be no way that they could communicate with anything else.
12. Regarding claim 47, Mahany et al. discloses that each device in the network has its own address, so through the address, the master device can determine if the device is a printer or whatever. See col. 10, lines 36-45.

***Claim Rejections - 35 USC § 103***

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mahany et al., in light of the rejection to claim 34. Mahany et al. does not expressly disclose having a third I/O port for receiving communication from a third wireless device, but it would have been obvious to a person of ordinary skill in the art at the time of the invention to have a third port along with the first two ports to receive communications from a third wireless device. One would have been motivated to do this because if there was another device that needed to communicate with the master device, it would have been convenient to have a third port so that the device could process multiple devices within the same frequency range at the same time.

15. Claims 36, 37, 39, 40-46, 48, and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mahany et al. in view of Junod et al. (US 5,854,621) and in light of the rejection to claims 47 and 35.

16. Regarding claims 36, 48, and 49, Mahany et al. does not expressly disclose using a wireless keyboard and a wireless mouse. Junod et al. discloses using a wireless mouse and also mentions the possibility of a wireless keyboard. See col. 4, lines 9-30. It would have been obvious to a person of ordinary skill in the art at the time of the invention to use keyboards and mice as the peripheral devices in Mahany et al. in addition to the other devices (e.g. printers) that were mentioned. One would have been motivated to do this because if master device was a palm computer that lacked external input devices, it might be easier to use an external keyboard and mouse to input information in the palm device as opposed to writing it in.

17. Regarding claim 49 more specifically, neither Mahany et al. nor Junod et al. expressly discloses that the output data will be cursor position data upon discovering that the wireless device is a mouse, but it would have been obvious to implement the corresponding protocol to include formatting payload data in the output signal as cursor position data. One would have been motivated to do this because that would be the correct type of data given that the device is a mouse because cursor positioning is the only purpose that a mouse serves.

18. Regarding claim 37, Mahany et al. discloses that the the port is connected to the processor as shown in Fig. 3.

19. Regarding claim 39, as mentioned previously, the processor of Mahany et al. is used to determine from which device the output signal came from and it then selects the correct protocol to act on the signal.

20. Regarding claim 40, as shown in Fig. 3 of Mahany et al., the ports and the processor are included in the transceiver 110.

21. Regarding claim 41, as mentioned previously, the first and second communication devices must contain ports and processors in order to communicate with the master device.

22. Regarding claim 42, any data transferred in a LAN can be considered a broadband signal. Mahany et al. discloses that data rates can be adjusted depending on what kind of battery savings is wanted. See col. 15, lines 2-19.

23. Regarding claims 43-46, as mentioned above, one of the frequency ranges mentioned was in the 27 MHz range, and the other band mentioned was in the 2.4 GHz range (first frequency from about 26 MHz to 28 MHz; second frequency range from 2 GHz to 4 GHz).



24. Claims 8, 9, 27, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mahany et al. in view of Cheng et al. (US 6,393,008) and in light of the rejections to claims 1 and 19. Regarding claims 8, 9, 27, and 28, Mahany et al. does not expressly disclose decoding a set of MAC information associated with the output signal. Cheng et al. discloses decoding MAC information in a wireless environment. See col. 2, line 42-col. 3, line 34. It would have been obvious to have been able to read MAC information in the way taught by Cheng et al. in the system disclosed by Mahany et al.. One would have been motivated to do this because there are certain layers that an output must pass through in order to be processed, and the MAC layer is one of them.

25. Claim 38 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mahany et al. in view of Cheng et al. (US 6,393,008) and in light of the rejections to claims 1 and 19. Mahany et al. nor Junod et al. expressly discloses decoding a set of MAC information associated with the output signal. Cheng et al. discloses decoding MAC information in a wireless environment. See col. 2, line 42-col. 3, line 34. It would have been obvious to have been able to read MAC information in the way taught by Cheng et al. in the system disclosed by Mahany et al.. One would have been motivated to do this because there are certain layers that an output must pass through in order to be processed, and the MAC layer is one of them.

***Response to Arguments***

26. Applicant's arguments with respect to claims 1-10,17,19-29 and 32-46 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

27. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy Lee whose telephone number is (703)305-7349. The examiner can normally be reached on M-F, 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on (703)305-4744. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-4700.

TLL

Application/Control Number: 09/507,768  
Art Unit: 2662

Page 10

A handwritten signature in black ink, appearing to read 'H. Kizou', is positioned above the printed name.

HASSAN KIZOU  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600